## Abstract

The invention relates to a method for transparently writing to shared memory when debugging a multiple processor system. In this method, a software memory map reflecting the memory usage of the processors in the system to be debugged is created. Two or more debug sessions associated with processors in the system are activated. When a debug session makes a write request to a shared memory location, a check is made to see if the processor associated with that debug session has write access to the shared memory location. If it does, that processor is used to execute the write. If it does not, the software memory map is searched to find a processor that does have write access to the shared memory location and that processor is used to execute the write.